Claims

1. An intervertebral joint prosthesis for an intervertebral space of the cervical spine, which intervertebral space is delimited by the end plates (12, 13) of the adjacent vertebral bodies whose surfaces, in a frontal plane, laterally adjacent to a substantially flat central area (2), have more strongly curved edge zones (4), at least one of the prosthesis surfaces (10, 11) intended to bear on a vertebral body surface having a lateral extent reaching into the edge zones (4), and the convex curvature of this prosthesis surface (9, 11), in the frontal plane, being at least as great as the corresponding curvature of the surface of the end plates (12, 13).

2. The prosthesis as claimed in claim 1, characterized in that its height in the caudo-cranial direction in the lateral edge zones (10, 14, 17) is approximately equal to the height of the intervertebral space at this location, and its height in the central area (8) is greater than that of the intervertebral space at this location.

3. The prosthesis as claimed in claim 1 or 2, characterized in that the prosthesis surface is provided with elevations and depressions in the central area (8), but not in the edge area.

4. The prosthesis as claimed in one of claims 1 through 3, characterized in that the prosthesis surface is toothed in the central area (8).

5. The prosthesis as claimed in claim 1 or 2, characterized in that the angle of inclination (α) of the edge zones (10) of the lower prosthesis surface (9) in the frontal plane relative to the main direction of extent (14) of the prosthesis reaches at least 20°.

6. The prosthesis as claimed in one of claims 1 through 5, characterized in that the angle of inclination (β) of the edge zones (10) of the upper prosthesis surface (11) relative to the main direction of extent (14) of the prosthesis reaches at least 0° and preferably 10 to 30°.

7. The prosthesis as claimed in one of claims 1 through 6, characterized in that the width (15) of the prosthesis is at least 1.5 times as great as the depth (16) by which it is intended to lie in the intervertebral space.

8. The prosthesis as claimed in one of claims 1 through 6, characterized in that the specified shape of the prosthesis is limited to its dorsal area.

9. The intervertebral joint prosthesis, in particular as claimed in one of claims 1 through 8, for an intervertebral space in which, in frontal section, an end plate surface (17) in its central and less mineralized area (2) is at a first distance (18) from a midplane (20) of the intervertebral space, and, in its lateral and more strongly mineralized lateral edge zones (4), is at a second distance (19) from said midplane (20) of the intervertebral space, and the prosthesis, in the same frontal section, has a central surface area (8) which is intended to bear on the central area (2) of the end plate surface (17) and is at a third distance (21) from the corresponding midplane (20'), and, at its edge zones (10) intended to bear on the lateral edge zones (4) of the end plate surface (17), it is at a fourth distance (22) from the corresponding midplane (20'), the third distance (21) being greater than the fourth distance (22) and the difference (23) between them being at least equally as great as the difference (24) between the first and second distances (18, 19).

10. The intervertebral joint prosthesis, in particular as claimed in one of claims 1 through 9, characterized in that the surface of at least one of its cover plates, whose size is dimensioned to substantially utilize the naturally provided surface of the intervertebral space, has a central area, which extends approximately parallel to the main plane of extent of the cover plate, and, adjoining this in the dorsolateral direction, a transition surface which is raised in relation to the central area.

11. An instrument set for inserting the prosthesis as claimed in one of claims 1 through 10, with at least one rasp (54) which reflects the configuration of the prosthesis and which adapts the vertebral body surfaces to the prosthesis shape, which is designed such that it includes the central area and the edge

zones and substantially spares at least the dorsal part of the edge zones from removal of material.